Cathell (W. T.)

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REPRINTED FROM THE
BALTIMORE MEDICAL AND SURGICAL RECORD,
MARCH, 1891.

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Headache, or pain in the head, as we all know is a very common affection, and results from a diversity of causes, and while not generally classed with the graver affections, yet from the amount of suffering and discomfort it entails, often makes it an object of serious concern to the practitioner. Indeed there are but few systemic derangements in which it does not play a primary or secondary part, being the result either of a direct organic lesion, or of a reflex neurotic expression, involving compression or irritation of the implicated nerve filaments.

My present intention, however, is not to review the various species which may be enumerated under the term headache, but only to call attention in a practical manner to the catarrhal form, in which I am specially interested, since the catarrhal origin of this variety is without doubt too often overlooked, and for this reason is apt to run along indefinitely, as it is indeed only of late years that headaches have been traced to co-existing nasal disease.

Voltolini in 1871 was among the earliest writers to recognize a series of head troubles having an inter-nasal origin, and many cases of similar nature have since from time to

time been reported by other observers. Crossfield makes the statement that "when nasal disease becomes more thoroughly understood, then and only then will we be able to trace other nervous phenomena, heretofore mysterious, to pathological conditions of the nasal passages." Yet diversity of opinion exists on this as numerous other subjects, each viewing the disease from the standpoint with which he is most conversant, and consequently to accurately make a satisfactory statistical report, showing which organ is the greatest etiological factor is as yet probably an impossibility. Zuckerkandl in his treatise "The Normal and Physiological Anatomy of the Air Passsages," is of the opinion that many headaches whose origin is apparently obscure could be traced to inter-nasal trouble, due either to "extension of an inflammatory condition or to other local nasal disturbances."

Schwalbe, Retzius, Axel and others demonstrated the fact that, not only can the nasal lymphatics be injected from the sub-arachnoidal and sub-dural spaces, but the fluid may be made to deposit itself even on the surface of the Schneiderian membrane, if the proper amount of force be used.

In considering the subject Catarrhal Headache, the functions of the nasal organ and its importance to the entire system must not be lost sight of. Its duty in the animal economy is not alone limited to the special sense of olfaction, but it also admits air to the lower respiratory tract, and is moreover an important factor in the necessary vocal mechanism. For the proper performance of these functions an essential condition is that it shall have an unobstructed lumen. Its variety of mucosa is not only confined to the nasal fossæ, but can be traced into many cavities of the superior maxillary, frontal, sphenoidal and ethmoidal bones. A moment's observation will show its continuation into the lachrymal ducts, Eustachian tubes, antrum of Highmore, frontal, sphenoidal and ethmoidal sinuses. And with the existence of this directly continuous membrane into the interior of the sinuses which are normally of a very narrow calibre, in connection with the fact that nasal inflammation is generally of a creeping or erysipelatous variety, we can readily comprehend how headaches and other disturbances, such as dullness of hearing, ophthalmic trouble, etc., may be due directly to nasal disease, as the least congestion narrows the openings and interferes with the patulency of the canals. So much is this the fact, that the rule may be laid down almost unhesitatingly that where catarrhal alteration of the nasal structures is established, headache is generally concomitant;

the intensity varying in accordance with the sensibility of the part in which the disease is seated and the general susceptibility of the patient.

In those who are subject to catarrhal affections in childhood, this variety of headache is invited to commence, owing to the physiological smallness of the cavities, and once started may go on indefinitely, even to adult life, if the etiological factor is not removed.

The attacks of catarrhal headache are generally paroxymal, varying in duration from a few moments to several hours, and reveal themselves by cold, benumbing confusion in some cases, while an acute pain, or both, are present in others, accompanied by hebetude of the sensorial powers (termed by Guye 'Aprosexia') which disqualifies the patient from a continuance of mental labor. A symptom peculiar to some is a feeling of tenseness or constriction over the anterior portion of the encephalon, as though its membraneswere muscles and bundles of muscles and each spasmodically contracted. In these cases, the turbinated tissue lining the accessory cavities of the frontal sinuses and anterior ethmoidal cells, participate in the inflammatory action, and the engorged membranes not only cause stenosis of the passages, but by their continued pressure upon each other bring about the disturbance,and in proportion to this co-existing pressure will be the intensity of the headache.

To more clearly define my premises I will briefly cite a case or two from my note book :

Case I.—Chas. H., aged 24, shipping clerk, consulted me November 2d, 1890, being predisposed to frequent attacks of acute catarrh. Beginning from the outset, and continuing long after their abatement, was a dull, agonizing headache, limited at all times to the upper nasal region. The head trouble seemed to sympathize actively with the nasal disturbance, for when the catarrh was aggravated the headache was increased. For the past week he would rise with it, have it all day, and even occasionally find it present on awaking at night. He would rest his head on his hands and remain in this position for hours, finding that such pressure gave some relief. Still it was many months before the patient realized that it was due to nasal trouble, and being sceptical as regards a cure it was many more before he consulted a physician. The pains were never acute and time did not have any apparent effect whatever in abating or in-

creasing the severity, but on interrogation he was inclined to believe that for the past few weeks the attacks had been more frequent. This, however, he attributed to mental strain, as he was daily compelled to ponder over long columns of figures. The nasal condition did not perceptibly interfere with the nasal respiration.

Since the outset of the head pain, he was continually employing ready made bromide compounds, of which we see so much, but without real benefit.

Examination revealed a succulent and inflamed condition of the pituitary membrane bathed in a thick secretion and covered here and there with patches of yellow mucus. Extensive engorgement was also present, markedly in the locality of the middle and lower turbinated bodies, which had, no doubt, been brought about by the frequently recurring colds, and with this existing puffiness no satisfactory examination of the upper part of the nasal chambers could be made. The mucosa was so sensitive that only with much difficulty could a solution of cocaine be applied. After its absorption great relief was experienced and the volume of the turgescence diminished, showing temporary engorgement and not permanent hypertrophy.

The most annoying symptom being the head trouble, attention was at once directed towards its amelioration, and knowing that the frontal sinuses should normally contain only a bland, water-like secretion, and even this physiologically should never accumulate, I ordered the following, known as 'Hegar's fluid,' in order to clear away all inspissated and hardened nasal secretions :

℞	Acidi phenici	ʒi
	Alcohol. fort.	ʒiii
	Liq. ammon. fort.	ʒi
	Aquæ destillat.	ʒii

M. Sig. A few drops to be inhaled from a small mouth bottle until a well-marked state of hypersecretion is established.

A few administrations of this brought about the desired flow of inspissated mucus, and the head trouble was soon modified.

The diseased condition of the nasal passages being the exciting cause of the head pain, they were directed to be cleansed morning and night with a detergent wash also to be sprayed every third day with the following :

℞ Iodini gr. vi
Potassi iodid gr. xxii
M. Glycerin. f ℥ss

Faithfully carrying out this plan of treatment for a fortnight considerably removed the frontal headache. I then lost sight of the patient, he being unwilling to submit to the restraint and regimen necessary for complete recovery of the nasal disease.

I, however, again saw him February 5, 1891, at which time, owing to an apparent reflex cough, uvulotomy was done, after which the head trouble returned but in a milder form, which was attributed to not perseveringly carrying out the original treatment. I have again placed him under treatment, and at the present time he is progressing moderately well. This patient is of a decidedly neurotic temperament, still I am confident that the treatment for the headaches is being directed to the proper organ.

Case 2. Mrs. J.; age 44, was a victim of severe throbbing pain limited to the nasal region, greatly tormenting her, which formerly was attributed to the menopause; so convinced was she that she had undergone uterine treatment in hope of relief. Lately however she noticed that stuffiness and occlusion of the nasal-fossæ was a concomitant of the trouble. Her other functions were regular and up to the present trouble she had always enjoyed good health.

Examination revealed considerable distention of the pituitary capillaries which had stimulated a flux of the neighboring muciparous follicles. There was also some deviation of the septum to the left side, with painful abrasions. Nose breathing was difficult, the nostrils being blocked up by tumefaction, and not by a profusion of inspissated mucus, as in the former case which had excoriated the skin about his anterior nares.

The catarrhal connection revealed in the history directed attention to nasal difficulty as having a marked influence in the production of the malady.

The good results obtained in the preceding and other cases determined me to adopt like measures in the present instance, but in this case without success, due to the fact that the ducts were not occluded by mucus as in the former case but were in a stenosed condition, brought about by the close proximity of the tumefaction of the lining membrane of the frontal sinuses. Therefore astringent treatment was employed, and subsequently the following salve, after a few blasts of the Politzer bag :

℞	Acidi phenici }	āā
	Iodini }	gr. ii
	Atropinæ	gr. ss
	Ungt. petrolii	ʒii

M. Sig. Apply at 8, 2 and 8 o'clock by means of the Devilbiss nasal atomizer.

Good results were brought about by these measures, so much so that the headache was to a great extent arrested, and up to the present time decidedly good results are still apparent.

Both of the foregoing cases were in patients where acute nasal catarrh was the primary cause, and if this variety predisposes to such frontal headache, how much more frequent and prolonged may we expect to find the pain due to the chronic form of the disease, where the pain is generally deep-seated and the therapeutic effects not so rapid. Still, even in this variety the treatment is far more favorable than in many other pneumatic spaces, for the direction of the sinuses tends greatly to aid the proper drainage, which is a fact of considerable clinical importance. For was this not the case, penetration of the imprisoned secretion through the posterior wall of the sinuses into the dura mater would be the rule instead of the exception.

Hypertrophic catarrh, which is most commonly a sequela of the acute variety, likewise predisposes to head trouble, and especially when implicating the ethmoidal and sphenoidal cells and frontal sinuses.

Atrophic catarrh, popularly known as dry catarrh, is another variety that is often a factor in the causation of headaches. Although the turbinated bodies and adjacent structures may completely atrophy, and the neighboring passages may be increased in calibre by the shrinking of their lining mucosa, yet owing to the presence of an over-amount of tenacious ichor and hardened scabs, one can readily perceive that even with the increased size of the cavities, the predisposition towards impaction and ulceration of the sinuses is far more liable to occur, and when this condition is established greater patience is necessarily required for its correction.

Where this variety is the etiological factor, the patient will oftimes consult us with the history of temporary head-relief on blowing his nose, and more especially will this be the fact if dislodgment of the imprisoned scabs be brought about. In these cases the scabs are generally found in their greatest profusion in the upper nasal tract and middle meatus, beneath which exist well-defined erosions, laying

bare the bony structure; therefore in this locality with similar existing conditions its relation towards co-existing headaches should always be suspected.

The foregoing are only two of the many cases that have been traced to a lesion in some portion of the nasal chambers. In the majority the headache is erroneously regarded as a coincidence rather than as bearing any consequential relation to the nasal passages.

Therefore, one might say, there are few morbid conditions so trying and embarrassing to the physician as these headaches, which are unrelievable, simply because our treatment is oftimes directed to the nervous derangement rather than the underlying disease upon which they depend. Consequently when head trouble is obscure and apparently inexplicable and especially if from continuous paroxysms we note the comparative shallowness of the pain, and its invariable frontal locality, we should at all times be on the alert for nasal trouble as the exciting cause, for on this pathological condition often depends the dyscrasia, and the treatment, properly directed, will often prove it to be the etiological factor.

Not only is catarrh the origin of many headaches, but its sequelæ, such as polypoid growths, etc., are also equally responsible in the causation of the various head troubles depending on nasal disorders.

The idiosyncrasies of the patient is at all times worthy of consideration, some having headaches from the most simple acute catarrh, while others are exempt and have tumefaction of the upper third to the maximum degree.

Finally, my own opinion is, that the existing etiological conditions present in the different varieties of catarrhal headache may be briefly summarized as follows, admitting, however, that exceptions do at times take place :

In acute nasal catarrh, inflammatory extension.

In the chronic variety, impacted and hardened secretions in the ducts.

In the hypertrophic variety, engorged tissues encroaching upon each other.

In the atrophic variety, impaction and ulceration within the sinuses.

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